



ICPC FACT SHEET – Sixth Release – 2 June 2013

The 37th Annual World Finals of the ACM International Collegiate Programming Contest (ICPC) sponsored by IBM

hosted by the St. Petersburg National Research University ITMO
in St. Petersburg, Russia, 30 June – 4 July, 2013

About the Contest – <http://www.acmicpc.org>, also <http://icpc.baylor.edu>

The ACM International Collegiate Programming Contest (ICPC) traces its roots to a competition held at Texas A&M in 1970 hosted by the Alpha Chapter of the UPE Computer Science Honor Society. The idea quickly gained popularity within the United States and Canada as an innovative initiative to raise the aspirations, performance, and opportunity of the top students in the emerging field of computer science.

The contest evolved into a multi-tier competition with the first Finals held at the ACM Computer Science Conference in 1977. Operating under the auspices of ACM and headquartered at Baylor University since 1989, the contest has expanded into a global network of universities hosting regional competitions that advance teams to the ACM-ICPC World Finals.

Since IBM became sponsor in 1997, ICPC participation has increased by more than 1100%. This year, ICPC participation included 29,479 of the finest students and faculty in computing disciplines from 2,322 universities from 91 countries on six continents.

The contest fosters creativity, teamwork, and innovation in building new software programs, and enables students to test their ability to perform under pressure. Quite simply, it is the oldest, largest, and most prestigious programming contest in the world.

The annual event is comprised of several levels of competition:

- *Local Contests* – Universities choose teams or hold local contests to select one or more teams to represent them at the next level of competition. Selection takes place from a field of over 300,000 students in computing disciplines worldwide.
- *Regional Contests* (September to December 2012) – 29,479 contestants from 2,322 universities in 91 countries on 6 continents competing at over 300 sites have been certified as of December 27, 2012. A total of 35,383 students competed in the ICPC and ICPC assisted contests combined. This year will have record participation.
- *World Finals* (June 30 – July 4, 2013, St. Petersburg, Russia) – Hosted by St. Petersburg National Research University ITMO, one hundred and twenty (120) world finalist teams will compete for awards, prizes and bragging rights. These teams represent the best of the great universities on six continents - the cream of the crop.

Battle of the Brains

The contest pits teams of three university students against eight or more complex, real-world problems, with a grueling five-hour deadline. Huddled around a single computer, competitors race against the clock in a battle of logic, strategy and mental endurance.

Teammates collaborate to rank the difficulty of the problems, deduce the requirements, design test beds, and build software systems that solve the problems under the intense scrutiny of expert judges. For a well-versed computer science student, some of the problems require precision only. Others require a knowledge and understanding of advanced algorithms. Still others are simply too hard to solve – except, of course, for the

world's brightest problem-solvers.

Judging is relentlessly strict. The students are given a problem statement – not a requirements document. They are given an example of test data, but they do not have access to the judges' test data and acceptance criteria. Each incorrect solution submitted is assessed a time penalty. You don't want to waste your customer's time when you are dealing with the supreme court of computing. The team that solves the most problems in the fewest attempts in the least cumulative time is declared the winner.

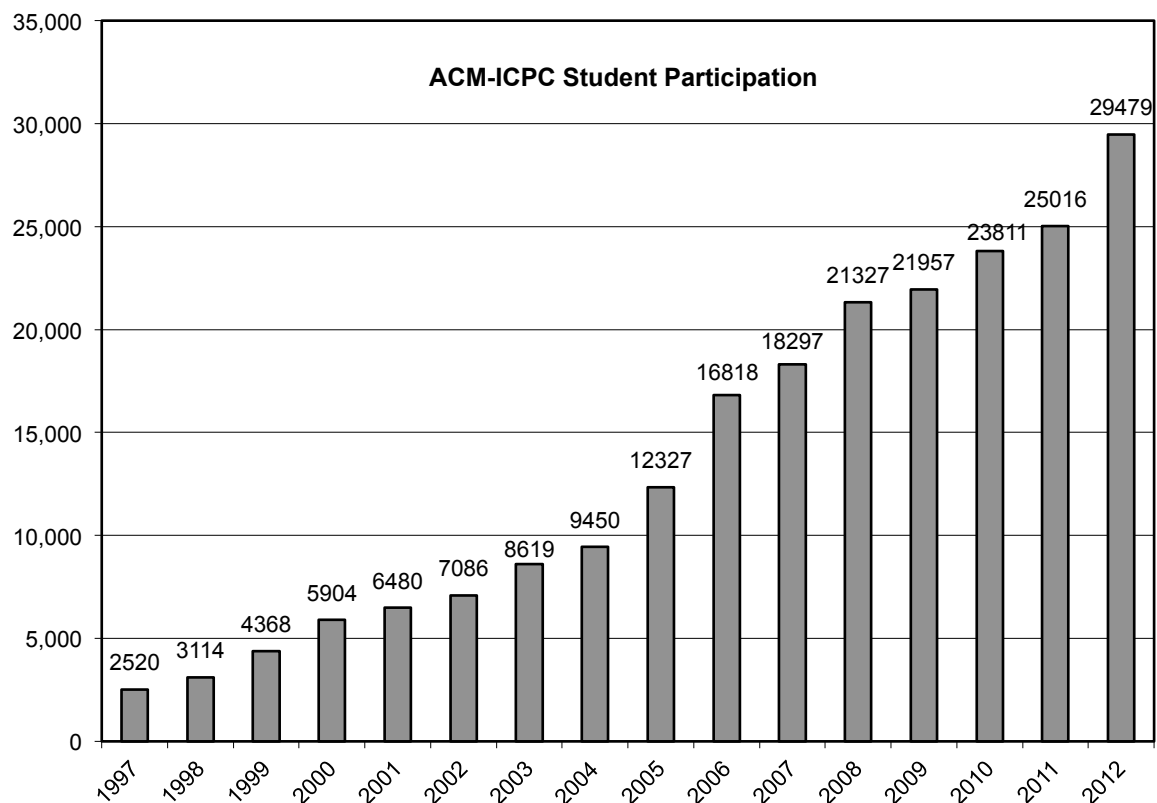
To learn more about the ICPC, please visit <http://icpc.baylor.edu> or <http://acmicpc.org>.

For full coverage of the World Finals including social media, photos, video, live coverage, and live scoreboard go to ICPC Digital, <http://icpc.baylor.edu/digital>.

Visit the ICPC podcast series at <http://battleofthebrains.podbean.com> for insights from past contestants and current IBM executives.

Contest Growth

ACM, IBM, UPE, and Baylor University are thrilled that the contest continues to attract the best and brightest students from around the world with 29,479 contestants from 2,322 universities in 91 countries competing this year as of December 27, 2012. Since the beginning of IBM's sponsorship in 1997, participation has increased more than 1100%. For more information on previous contests, and last year's final standings and problem sets, please see <http://icpc.baylor.edu/> or <http://www.ibm.com/university/acmcontest/>. Growth continues.



World Finals 2013 hosted by the St. Petersburg University ITMO – the final round for the 2012 Regionals

One hundred and twenty teams from regional contests servicing universities worldwide have advanced to the World Finals to be held in St. Petersburg, Russia, June 30 to July 4, 2013. The World Finals is hosted by the St. Petersburg National Research University of Information Technologies, Mechanics and Optics. ITMO has four World Championships, the most by any university in ICPC history, and regularly advances teams to the World Finals. The Prime Minister of the Russian Federation, Dmitry Medvedev, is Honorary Chair of the 2013 ACM-ICPC World Finals Patrons. Vladimir Parfenov and Roman Elizarov, founders of the ICPC in the Russian Federation, serve as World Finals Directors.

Recent medal winners in order of finish are:

- 2012 Gold: St. Petersburg National Research University ITMO (Russia)
University of Warsaw (Poland)
Moscow Institute of Physics & Technology (Russia)
Shanghai Jiao Tong University (China)
- 2011 Gold: Zhejiang University (China)
University of Michigan at Ann Arbor (U. S. A.)
Tsinghua University (China)
St. Petersburg State University (Russia)
- 2010 Gold: Shanghai Jiao Tong University (China)
Moscow State University (Russia)
National Taiwan University (Taiwan)
Taras Shevchenko Kiev National University (Ukraine)
- 2009 Gold: St. Petersburg National Research University ITMO (Russia)
Tsinghua University (China)
St. Petersburg State University (Russia)
Saratov State University (Russia)
- 2008 Gold: St. Petersburg National Research University ITMO (Russia)
Massachusetts Institute of Technology (U. S. A.)
Izhevsk State Technical University (Russia)
Lviv National University (Ukraine)

About ACM

ACM, the Association for Computing Machinery, with more than 100,000 members, is the world's largest educational and scientific computing society, uniting computing educators, researchers, professionals, and students to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking. For more information, see <http://www.acm.org>.

About IBM

With the Smarter Planet initiative, IBM believes intelligence allows for the growth and innovation of human life, including the way people live, work, and govern themselves; the way services are ordered and delivered; and the way the environment is protected.

The world is already connected economically, technologically and socially. However, being connected alone is not sufficient. The world needs new generations of talent, leaders and problem solvers to infuse intelligence into our daily lives.

IBM is the world's largest information technology and service provider. Over the last decade, IBM has driven a significant transformation of its business model as the company shifts to higher value areas and improve efficiency of the business. IBM has been building these capabilities to round out the portfolio to address the needs of clients and the society.

IBM has 35,000 software engineers in more than 90 research and development laboratories around the globe, who focus on solving real-world business issues for clients in more than 170 countries. IBM invests in high business values and strategic markets such as Business Analytics and Optimization; Cloud Computing; Smarter Commerce; Business Services; Enterprise Operations; Risk Management; Mobile Computing; and Collaboration. IBM's Watson computer is an example of data analytics. IBM provides industry solutions in areas such as smarter cities, energy, utility, financial markets, chemicals, petroleum, electronics, public service, health care, retail, telecommunications, transportation, manufacturing, media and entertainment. For more information, visit <http://www.ibm.com/software>.

IBM's Commitment

IBM's sponsorship commitment to the ACM International Collegiate Programming Contest is part of a company-wide effort to advance the next generation of technology leaders and problem solvers who have combined skills of computing science and business management. For more information, visit <http://www.ibm.com/university/acmcontest/>

The University ITMO Commitment

St. Petersburg National Research University of Information Technologies, Mechanics and Optics (ITMO) has a historical commitment to excellence in problem solving. Having championed the ICPC throughout the Russian Federation and surrounding countries, ITMO is among the most be-medaled university in the world with the most World Championships of any university in the world, four. As one of only a handful of National Research Universities, ITMO empowers the next generation of innovators. For more information, visit <http://en.ifmo.ru/>.

Baylor University's Commitment

Baylor University has been the home of the ICPC since the late 1980s, where it has been managed under the direction of Executive Director and Professor, Dr. William B. Poucher with global enterprise technology development headed by Dr. Jeff Donahoo, Deputy Executive Director. The ICPC contributes to Baylor's global mission to encourage the next generation to develop and apply their problem-solving talents to the challenges that face the world today and the world to come. Chartered by the Republic of Texas, Baylor is the oldest institution of higher learning in the State of Texas. You may find more about Baylor at <http://www.baylor.edu/>.

Upsilon Pi Epsilon's Commitment

The Upsilon Pi Epsilon International Computer Science Honor Society recognizes the best students of computer science and engineering in the world. Since its earliest participation, the UPE has provided support and scholarships to the World Finals teams. The UPE boasts the longest continuous relationship to the ICPC, dating back to 1970 with the first event held at Texas A&M by members of the Alpha Chapter of the UPE. For more information about other UPE activities, its chapters, and its membership click on: <http://www.acm.org/upe/>.

2013 ACM-ICPC World Finals List by Regions (In alphabetical order by region)

Africa and the Middle East

Alexandria University - Faculty of Engineering	Egypt
The American University in Cairo	Egypt
Arab Academy for Science and Technology - Alexandria	Egypt
Cairo University - Faculty of Computers and Information	Egypt
German University in Cairo	Egypt
Tishreen University	Syria
University of Cape Town	South Africa

Asia

Bangladesh University of Engineering and Technology	Bangladesh
Shahjalal University of Science and Technology	Bangladesh
Beihang University	China
Beijing Institute of Technology	China
Beijing University of Posts and Telecommunications	China
Fudan University	China
Harbin Institute of Technology	China
Huazhong University of Science & Technology	China
Ningbo Institute of Technology, ZJU	China
Northeast Normal University	China
Peking University	China
Renmin University of China	China
Shanghai Jiao Tong University	China
South China University of Technology	China
Tianjin University	China
Tsinghua University	China
University of Electronic Science and Technology of China	China
Zhejiang University	China
Zhongshan (Sun Yat-sen) University	China
Hong Kong University of Science and Technology	Hong Kong
The Chinese University of Hong Kong	Hong Kong
University of Hong Kong	Hong Kong
Institut Teknologi Bandung	Indonesia
Chennai Mathematical Institute	India
Indian Institute of Technology - Bombay	India
Indian Institute of Technology - Indore	India
Indian Institute of Technology - Roorkee	India
International Institute of Information Technology - Hyderabad	India
Amirkabir University of Technology	Iran
Sharif University of Technology	Iran
University of Tehran	Iran
The University of Electro-Communications	Japan
The University of Tokyo	Japan
Tokyo Institute of Technology	Japan
KAIST	Korea
SungKyunKwan University	Korea
Nanyang Technological University	Singapore

National University of Singapore	Singapore
National Taiwan University	Taiwan
Can Tho University	Vietnam

Europe & the Russian Federation

Belarusian State University	Belarus
Ludwig-Maximilians Universität München	Germany
Universität Rostock	Germany
International IT University	Kazakhstan
Kazakh-British Technical University	Kazakhstan
Kaunas University of Technology	Lithuania
Universiteit Leiden	Netherlands
Jagiellonian University in Krakow	Poland
University of Warsaw	Poland
University of Wrocław	Poland
University of Bucharest	Romania
Altai State Technical University	Russian Federation
Izhevsk State Technical University	Russian Federation
Moscow Aviation Institute	Russian Federation
Moscow Institute of Physics & Technology	Russian Federation
Moscow State Institute of Steel and Alloys	Russian Federation
Moscow State University	Russian Federation
Novosibirsk State University	Russian Federation
Perm State University	Russian Federation
Saint Petersburg Academic University	Russian Federation
Samara State Aerospace University	Russian Federation
Saratov State University	Russian Federation
St. Petersburg National Research University of ITMO	Russian Federation
St. Petersburg State University	Russian Federation
Ufa State Aviation Technical University	Russian Federation
Ural Federal University	Russian Federation
Comenius University	Slovakia
Universitat Politècnica de Catalunya	Spain
ETH Zürich	Switzerland
Taras Shevchenko Kiev National University	Ukraine
V. N. Karazin Kharkiv National University	Ukraine

Latin America

Universidad de Buenos Aires - FCEN	Argentina
Universidad Nacional del Sur	Argentina
Instituto Tecnológico de Aeronautica	Brazil
Universidade de São Paulo - Escola Politécnica	Brazil
Universidade de São Paulo	Brazil
- Instituto de Ciências Matemáticas e de Computação	
Universidade Estadual de Campinas	Brazil
Universidade Federal de Minas Gerais	Brazil
Universidade Federal de Pernambuco	Brazil
Universidad de Chile	Chile
EAFIT University	Colombia
Universidad Nacional de Colombia - Bogotá	Colombia

Universidad Tecnologica de Pereira	Colombia
Universidad de La Habana	Cuba
Universidad de las Ciencias Informáticas	Cuba
Escuela Superior De Computo Instituto Politecnico Nacional	Mexico
Universidad Panamericana Campus Bonaterra	Mexico
Universidad Nacional de Ingeniería - FIIS	Peru

North America

University of Calgary	Canada
University of British Columbia	Canada
University of Lethbridge	Canada
University of Manitoba	Canada
University of Toronto	Canada
University of Waterloo	Canada
Carnegie Mellon University	United States
Columbia University	United States
LeTourneau University	United States
Rose-Hulman Institute of Technology	United States
Massachusetts Institute of Technology	United States
South Dakota School of Mines and Technology	United States
Stanford University	United States
University of Central Florida	United States
University of Chicago	United States
University of Connecticut	United States
University of Florida	United States
University of Illinois at Urbana-Champaign	United States
University of Maryland	United States
University of Minnesota - Twin Cities	United States
University of Southern California	United States
University of Virginia	United States
University of Wisconsin - Madison	United States

South Pacific

University of New South Wales	Australia
University of Sydney	Australia